

What is claimed is:

1. A method for determining an impact-free extremal set position of an actuating member of an internal combustion engine for which an actuating quantity, which is to be adjusted, has an extreme value, the method comprising the steps of:

5 providing an operating state of said engine substantially independent of said set position;

utilizing a sensor to measure said actuating quantity for each of a plurality of different set positions in a range of said set positions wherein said extreme value of said actuating
10 quantity is suspected to lie; and,

determining that set position as said extremal set position whereat the measured actuating quantity has an extreme value.

2. The method of claim 1, wherein said actuating member is a throttle flap or an exhaust-gas recirculation valve.

3. The method of claim 1, wherein an overrun operation of said engine is selected as said operating state.

4. The method of claim 1, wherein an idle operation of said engine is selected as said operating state.

5. The method of claim 4, comprising the further step of interrupting the measuring operation when the idle rpm drops below a pregiven value; and, that the last determined measured value for said actuating quantity is interpreted as said extreme
5 value.

6. The method of claim 1, comprising the further step of opening an exhaust-gas recirculation valve when an intake manifold pressure of said engine drops below a pregiven value during the measuring operation.

7. The method of claim 6, wherein said intake manifold pressure drops below said pregiven value for a predetermined time.

8. The method of claim 1, wherein an air quantity or a pressure of said engine is used as said actuating quantity.

9. The method of claim 8, wherein said pressure is the pressure in said intake manifold.

10. An arrangement for determining an impact-free extremal set position of actuating member of an internal combustion engine for which an actuating quantity, which is to be adjusted, has an extreme value, the arrangement comprising:

5 means for providing an operating state of said engine substantially independent of said set position;

 a sensor for measuring said actuating quantity for each of a plurality of various set positions in a range of said set positions wherein said extreme value of said actuating quantity

10 is suspected to lie; and,

 means for determining that set position as said extremal set position whereat the measured actuating quantity has said extreme value.